DART System Status Report

May 2000

DART test mooring D123 was recovered off the coast of Monterey, California from NOAA ship RON BROWN in February 2000. The surface and sub-surface mooring, deployed in May 1999, provided 9 months of continuous data with an averaged return greater than 90%. The high data return confirmed the value of having fully redundant systems on board the buoy. This site has proven valuable for system testing and may be used for such purposes in the future.

DART mooring D130 was deployed from NOAA ship RON BROWN on 21 March 2000. To save laboratory resources and improve reliability, this system has no surface mooring acoustic release and is equipped with a bottom package having a lifetime of 2 years. In an effort to improve system reliability, D130 has a prototype acoustic modem receiver. Wake-up problems inherent in prior systems have been greatly reduced with this prototype, and overall system performance is better than previous systems. The system to date has a data return rate of 100%. Acoustic modem receivers on all DART moorings may be upgraded prior to the next deployment cycle in August 2000 because of this prototype's performance.

Moorings at DART stations D157a, D157b and D165 that were deployed in October 1999 in the North Pacific will be recovered on leg 1 of the upcoming August 2000 cruise on the NOAA ship RON BROWN. Replacement moorings at both D157a and D165 will be deployed at the time of each respective recovery. Upon completion of operations at D157 and D165, a DART mooring will be deployed at 175 degrees west longitude for the first time.

In an effort to improve quality and reduce costs of observational systems, a Buoy Systems Lab was established within existing EDD space. The sole lab technician is responsible for procurement, setting a manufacturing schedule and assembly of DART systems. Establishing this function allows engineers to focus on design improvements for future systems. This laboratory provides crucial support to all PMEL projects including Tsunami DART.